

REMARKS/ARGUMENTS

Claims 1-22 now stand in the present application, claims 1, 3, 11, 13 and 15-19 having been amended, and new claims 20-22 having been added. Reconsideration and favorable action is respectfully requested in view of the above amendments and the following remarks.

In the Office Action, the Examiner has objected to claims 4-10 and 14 under 37 CFR 1.75(c) as being in improper multiply dependent form. Apparently, the Examiner has overlooked the Preliminary Amendment which was filed on March 21, 2002 and which corrected the very deficiency pointed out by the Examiner. Accordingly, Applicants are entitled to a new non-final Office Action considering the merits of these claims which the Examiner has not treated on the merits in the present Office Action.

The Examiner has rejected claim 3 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. As noted above, Applicants have amended claim 3 in order to correct the deficiency pointed out by the Examiner.

The Examiner has also rejected claims 1-3, 11-13, 15-17 and 19 under 35 U.S.C. § 102(b) as being anticipated by Du et al., U.S. Patent No. 5,826,239 (hereinafter "Du") and has rejected claim 18 under 35 U.S.C. § 103(a) as being unpatentable over Du. Applicants respectfully traverse the Examiner's §§ 102 and 103 rejections of the claims.

Applicants' invention provides a resource management tool which allows more flexibility in the way a piece of work is completed than known resource management tools (see page 1, lines 24-27 of the present specification). In addition to doing what Du does, i.e., enabling the allocation of resources to tasks, it accommodates availability

data received via resource interfaces in the light of predetermined constraints (see page 2, lines 20-23 of the present specification).

Du teaches a Workflow Management System which is based on workflows like those seen in Figures 3 and 7. In allocating tasks included within the process (the squares in Figure 3), the Du system, as shown in Figure 1, runs a distributed computer program in which each computer in the network runs at least some of the program components shown in Figure 2. The job of allocating resources to tasks is decentralized. Figure 8 shows that the resource database is distributed between the computers in the system.

In allocating resources to tasks, a local resource manager (see Du at column 13, lines 43-47) keeps a database which includes the availability and workload of local resources. If the combined effect of non-availability of a number of local resources in the group merits reporting to a global resource manager, then the global resource manager is updated. The threshold used in deciding whether such reporting is merited is the consistency predicate discussed at column 14, lines 41-44 and column 16, lines 11-18. This need to update a distributed resource database to reflect a change in resource availability should be understood as a specific example of the more general problem of maintaining the consistency of data stored in a distributed database (see the discussion in Du at column 3, line 39 to column 4, line 11 and column 5, lines 8-20).

The locally stored resource data apparently includes, for each resource, a list of the capabilities of that resource (see column 15, lines 29-35). The capabilities of a group are aggregated as set out in line 34 – the group capability is limited to capabilities

which every resource in that group has. The aggregated capability is made available to the global resource manager.

The locally stored resource data also includes data defining the availability of each resource and its current workload (column 15, line 60 to column 6, line 10). In this case, aggregation is achieved by summing the number of available resources, and by averaging the workload. The aggregated availability is made available to the global resource manager when a threshold is breached as discussed above.

None of this however suggests that the resource management tool of Du overcomes the problem of rigidity in workflow management systems. In Du, if a human or machine resource unpredictably becomes unavailable or suffers an increase in its workload, then that might be sufficient to alert the global resource manager.

However, there is no suggestion that the local resource manager should react to the unpredictable failure by testing the resultant aggregated availability or workload against predetermined constraints, and if that test fails, to send a rejection signal to the resource that has unpredictably failed and possibly other resource interfaces as well, as required in the present claims.

In other words, there is nothing in Du that would enable a first resource to provide 'cover' for a second resource should the first resource become, or wish to become, unavailable. An example of how this is possible using Applicants' invention is given at page 15, line 1 to page 18, line 21 of the present specification.

In Du there is a business process management level which involves the definition of what worksteps (Work Nodes) follow which other worksteps. The workflow can be a straightforward sequence of work nodes, or involve branches which select one Work

Node or another. Such branches take the form of Rule Nodes. Many of the passages cited by the Examiner relate to Du at this level, for example, those in columns 8, 9, 11 and 19. The passages in columns 4, 5 and 10 relate to resource management.

It appears that the Examiner is arguing that a workflow process will include resource allocation which will be represented as a work node (column 8, lines 35-38). Also included in the workflow process are rule nodes. However, in Du the rule nodes determine which work nodes are carried out next (see column 8, lines 62-65) rather than constraining what happens within a work node. Hence, a rule node will not influence the resource allocation that might take place in a work node, as do Applicants' claimed inventions.

Accordingly, since Du does not teach or suggest the above-described features of Applicants' invention all of claims 1-22, now standing in the application, are believed to patentably define thereover.


Therefore, in view of the above amendments and remarks, it is respectfully requested that the application be reconsidered and that all of claims 1-22, standing in the application, be allowed and that the case be passed to issue. If there are any other issues remaining which the Examiner believes could be resolved through either a supplemental response or an Examiner's amendment, the Examiner is respectfully requested to contact the undersigned at the local telephone exchange indicated below.

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Respectfully submitted,

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